

Application No.: 10/553,103
Amendment and Response dated January 7, 2009
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Remarks/Arguments:

Introduction

Claim 1 has been amended to further describe that the working container and the releasable flexible reservoir have an open connection between them such that during normal operation these form communicating vessels. Support of this amendment may be found in the Specification at page 4, lines 1-10 (or paragraph 0008 of the published application). Claims 18 and 19 have been added. Support for these newly added claims may be found in the Specification at page 5, lines 34-37 (or last sentence of paragraph 0011 of the published application). No new matter is introduced with these amendments. Entry of the amendments is respectfully requested.

Section 103 Rejections

Claims 1-3, 8 and 10-12 are rejected under 35 U.S.C. §103(a) as allegedly being obvious over U.S. Patent No. 6,267,474 to Mochizuki (hereinafter “Mochizuki”) in view of U.S. Patent No. 6,193,354 to Ito (hereinafter “Ito”). Applicant respectfully traverses.

Claim 1 has been amended to further describe that the working container and the releasable flexible reservoir have an open connection between them such that during normal operation these form communicating vessels. As previously discussed in the Amendment and Response dated March 19, 2008, this open connection during operation is a fundamental difference between the present invention and Mochizuki.

In Mochizuki the ink bags with large capacity housed in pressurizing chambers 12, 13, 14 and 15 are connected to the sub-tanks 20, 21, 22 and 23 by means of ink transport tubes 16 to 19 where these ink transport tubes are provided with electromagnetic stop valves 28 to 31. (Mochizuki, column 2, line 59-67). The operation of this control system of Mochizuki is explained in column 4, line 17 column 5, line 67. From the description of this operation of

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Mochizuki it is clear that the flow of ink from the large ink bags contained in pressurizing chambers 12-15 is controlled by the electromagnetic stop valves 28-31 which are only open, when the level of ink in the sub-tanks 20-23 has fallen below a certain level. After refilling of these sub-tanks by ink from the ink bags the electromagnetic stop valves are closed again. Thus, Mochizuki fails to teach or suggest a printing device for printing a substrate with a printing medium using the “drop-on-demand” principle, having, *inter alia*, a working container and a releasable flexible reservoir having an open connection between them such that during normal operation these form communicating vessels.

The ink jet recorder disclosed in Ito also includes a pump 25 between the main tank 29 and tank 21. (Ito, column 3, line 52-59 and column 4, line 62-67). Thus in a combination of Mochizuki and Ito there will be no open connection during normal operation.

The advantages of having an open connection forming a communicating vessel are explained in the present application at paragraph [0008] of US 2006/10268082 A1. In fact, the device according to the invention does not include active elements like valve(s) or pump(s) between the releasable reservoir and the working container, as noted in dependent claims 18 and 19.

With respect to the dependent claims, first of all it is noted that these sub-claims are dependent from an independent claim patentably distinct from the applied art. Nevertheless, in more detail, Ito does not show that the reservoir 29 is positioned at a height difference above the tank 21. Otherwise the presence of a pump would be superfluous. Furthermore, Ito only discloses displacement means (tank height adjuster), generally indicated by reference no. 23. Ito does not disclose that the device is provided with displacement means for moving the ink supply indicated by no. 29. In the system of Ito the level of ink in ink supply 29 does not contribute to maintaining the pressure difference between the tank 21 and the nozzle 5. This is because there is no open connection, but instead a pump 25 is present between the ink supply 29 and the open tank 21. With respect to the further dependent claims the arguments presented

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in your March 19 amendment and response are still valid and should be repeated if deemed necessary.

Thus, Mochizuki fails to teach or suggest the present invention as claimed. Accordingly, reconsideration and withdrawal of the rejections of claims 1-3, 8 and 10-12 under 35 U.S.C. §103(a) are respectfully requested.

Claims 4-7 are rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Mochizuki in view of U.S. Patent Application Publication No. 2003/0071722 to Cole (hereinafter “Cole”). Applicant respectfully traverses.

Cole relates to a dump truck tale gate latch monitor. Although it shows a tilting mechanism, this topic is far removed from the technical field of piezo drop-on-demand printing that one of ordinary skill in the art would not be motivated to combine the teachings of Cole as asserted by the examiner. In establishing a *prima facie* case of obviousness, the cited references must be considered for the entirety of their teachings. *Bausch & Lomb, Inc. v. Barnes-Hind, Inc.*, 230 U.S.P.Q. 416, 419 (Fed. Cir. 1986). It is impermissible during examination to pick and choose from a reference only so much that supports the alleged rejection. *Id.* It is only through hindsight reconstruction and very selective picking and choosing while ignoring divergent teachings does the Examiner attempt to reach the present invention through the combination of Mochizuki and Cole. It is also well established, however, that hindsight reconstruction of a reference does not present a *prima facie* case of obviousness, and any attempt at hindsight reconstruction using Appellant’s disclosure is strictly prohibited. *In re Oetiker*, 24 U.S.P.Q.2d 1443, 1445-46 (Fed. Cir. 1993). Such hindsight reconstruction by the Examiner is clear as, *inter alia*, Cole is related to a dump truck tale gate latch monitor.

Furthermore, the examiner has asserted an overly broad interpretation of claims 4-7 in an attempt to provide analysis for the *Graham* factors under a Section 103 obviousness rejection. Dependent claims 4-7 cannot be read in absence of the independent claim.

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Independent claim 1 clearly describes that the releasable flexible reservoir is for storing degassed printing medium. The flexible reservoir is in communication with a flexible working container which is arranged in a fixed position relative to the spray nozzle. The mere movement of fluid by gravity, as asserted by the examiner, is not the proper inquiry. Rather, the examiner must consider the movement of fluid from one reservoir or container to another container.

In such a consideration, one of ordinary skill in the art would not be motivated to rely on the dump truck teachings of Cole in an attempt to arrive at the present invention because, *inter alia*, Cole is not directed in the movement of fluid from one container to another container.

Assuming *arguendo* that the examiner may properly consider the open bed 5 of Cole's dump truck as a "container", Cole fails to teach or suggest the transport of material from the bed 5 into another container. The examiner, however, asserts that the open space outside of Cole's bed 5 is another "working container". This cannot be a proper assertion because, *inter alia*, the open space is the final disposition of the product of Cole. In the terms of the present claims, the "open space" of Cole would be the substrate onto which drops of printing medium are deposited via the spray nozzle, as set forth in independent claim 1. In other words, Cole fails to teach or suggest a "second" container.

Thus, Mochizuki and Cole fail to teach or suggest the invention as presently defined by claims 4-7. Reconsideration and withdrawal of the rejections of claims 3-7 under 35 U.S.C. § 103(a) are respectfully requested.

Summary

Therefore, Applicants respectfully submit that independent claim 1, and all claims dependent therefrom, are patentably distinct. This application is believed to be in condition for allowance. Favorable action thereon is therefore respectfully solicited.

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Should the Examiner have any questions or comments concerning the above, the Examiner is respectfully invited to contact the undersigned attorney at the telephone number given below.

The Commissioner is hereby authorized to charge payment of any additional fees associated with this communication, or credit any overpayment, to Deposit Account No. 08-2461. Such authorization includes authorization to charge fees for extensions of time, if any, under 37 C.F.R. § 1.17 and also should be treated as a constructive petition for an extension of time in this reply or any future reply pursuant to 37 C.F.R. § 1.136.

Respectfully submitted,

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